ISSN 1068-1620 CODEN: RJBCET

RUSSIAN JOURNAL OF BIOORGANIC CHEMISTRY



Editor-in-Chief Sergei N. Kochetkov

> https://pleiades.online https://link.springer.com https://www.rjbc.online



Distributed by **SPRINGER NATURE**



Stranger and a comme

34 articles in this issue

Pyran-Fused Analogues and Their Potential Applications

 $\frac{\alpha}{\alpha} \stackrel{\circ}{\alpha} \stackrel{\circ}$

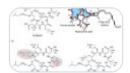
REVIEW PAPER | 06 April 2025 | Pages: 373 - 438

Comprehensive Review and Perspective on Fructose 1,6-Bisphosphatase Inhibitors for the Management of Type 2 Diabetes Mellitus



REVIEW PAPER | 06 April 2025 | Pages: 439 - 464

Instrumental Approaches to the Detection and Quantification of Surfactin



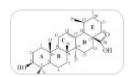
REVIEW PAPER | 06 April 2025 | Pages: 465 - 490

Gene Therapy Drugs Based on Synthetic Oligonucleotides



REVIEW PAPER | 06 April 2025 | Pages: 491 - 507

Ursolic Acid: Sources, Synthesis, Properties, Modifications, Application



REVIEW PAPER | 06 April 2025 | Pages: 508 - 532

Application of Organic Fluorophores in the Development of Drug Delivery Systems Based on Synthetic and Natural Polymers



Prospects for the Use of Antibody-Drug Conjugates in Cancer Therapy



REVIEW PAPER | 06 April 2025 | Pages: 556 - 573

Synthesis and Biological Assessment of Novel Derivatives of 2-Oxo-tetrahydropyrimidine-5-carboxamides

RESEARCH PAPER | 06 April 2025 | Pages: 574 - 583

Exploration of Indazole-Derived Oxadiazoles and Thiadiazoles as Potential Antimycobacterial Agents: Synthesis and *In Silico* Docking Analysis



RESEARCH PAPER | 06 April 2025 | Pages: 584 - 600

Targeting PI3K/AKT/mTOR Signaling with Novel Andrographolide

Analogues Potentially Induces Apoptosis and Inhibits the Metastatic

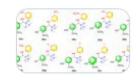
Ability of Human Breast Cancer Cells: Rational Design, Synthesis, and In

Vitro Studies



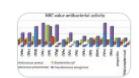
RESEARCH PAPER | 06 April 2025 | Pages: 601 - 628

Design, Synthesis, Antioxidant, Antitubercular Activity, and *In*Silico Studies of Novel α-Amino Phosphonates of Vanillin, a Potent
Bioactive Molecule



RESEARCH PAPER | 06 April 2025 | Pages: 629 - 641

Exploring Synthesis, DFT Characterization, and Molecular Docking of β-Naphthol Derivatives: Investigating Dual Enzyme Inhibition and Antimicrobial Potential with ADMET Profiling



RESEARCH PAPER | 06 April 2025 | Pages: 642 - 672

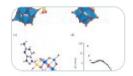
Evaluation of Novel Spiro-1,4-dihydropyridine Derivatives as Potent Antimicrobial and Anticancer Agents

RESEARCH PAPER | 06 April 2025 | Pages: 673 - 682

Synthesis and Antimicrobial Screening of Some Thiazolidin-4-one Derivatives

RESEARCH PAPER | 06 April 2025 | Pages: 683 - 692

Platinum Polyoxoniobate: Stability, Cytotoxicity, and Cellular Uptake



RESEARCH PAPER | 06 April 2025 | Pages: 693 - 701

Single-Domain Nanobodies for Determination of Conformational Changes in Transferrin and Their Use in Fluorescent Polarization Immunoassay



RESEARCH PAPER | Open access | 06 April 2025 | Pages: 702 - 711



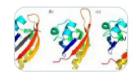
Part of 1 collection:

Recombinant Proteins

New Potential Fluorogenic Dyes with an Extended π -System Based on Arylidene-Azolones

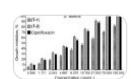
RESEARCH PAPER | 06 April 2025 | Pages: 712 - 720

picoFAST: New Genetically Encoded Fluorescent Tag



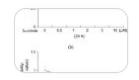
RESEARCH PAPER | 06 April 2025 | Pages: 721 - 728

Synthesis, Docking Study, and Structural Characterization of New Bioactive Thiazolidine-4-one Derivatives as Antibacterial and Antioxidant Agents



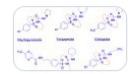
RESEARCH PAPER | 06 April 2025 | Pages: 729 - 742

Sunitinib Stimulates Cellular Senescence of Gastrointestinal Stromal Tumor Cells through Inhibition of SIRT1



RESEARCH PAPER | 06 April 2025 | Pages: 743 - 754

Exploration of a Novel Indole/Pyrazole Scaffold as a Promising Dual α-Glucosidase and α-Amylase Inhibitor: an *In Vitro*, *In Vivo* and *In Silico* Approach Toward Antidiabetic Drug Design



RESEARCH PAPER | 06 April 2025 | Pages: 755 - 771

The Impact of Zyxin Modifications on Its Intracellular Distribution in the Xenopus Laevis Embryo Model



RESEARCH PAPER | 06 April 2025 | Pages: 772 - 783

A Monoclonal Antibody Against the Oligomeric Form of the Large *C*-Terminal Fragment (Met225–Ile412) of *Bacillus cereus* Hemolysin II is Capable of Strain-Specific Inhibition of the Hemolytic Activity



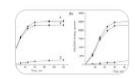
RESEARCH PAPER | 06 April 2025 | Pages: 784 - 792



Part of 1 collection:

Recombinant Proteins

Antituberculosis Action of the Synthetic Peptide LKEKK



RESEARCH PAPER | 06 April 2025 | Pages: 793 - 801

Synthesis and Medicinal Impacts of Novel 3,3'-Bihalocoumarins and Their Precursors, 7-Halocoumarin-3-acetic Acids

RESEARCH PAPER | 06 April 2025 | Pages: 802 - 815

Exploration of Some Thieno[2,3-b]pyridines, Thieno[3,2-d]pyrimidinones, and Thieno[3,2-d][1,2,3]triazinones as Insecticidal Agents

Against Aonidiella aurantii



Design, Synthesis, and Antimicrobial Evaluation of Novel 5-Chloropyridine Oxalamide Conjugates as *In Vitro* and *In Silico* Inhibitors of *E. coli* DNA Gyrase and *C. albicans* Sterol 14α-Demethylase (CYP51)



RESEARCH PAPER | 06 April 2025 | Pages: 827 - 849

Synthesis and Properties of Phosphoryl Guanidine Oligonucleotides Containing 2',4'-Locked Nucleotides



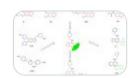
RESEARCH PAPER | 06 April 2025 | Pages: 850 - 859

Enzymatic Synthesis of Biologically Active 5-Substituted Analogues of 2'-Deoxyuridine by *Lactobacillus leichmannii* Nucleoside Deoxyribosyltransferase Type II



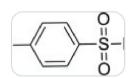
RESEARCH PAPER | 06 April 2025 | Pages: 860 - 868

Design, Synthesis, and Antitumor Activity Evaluation of Novel 2,4,7-Trisubstituted Quinazoline Derivatives Containing an Aminomethyl Piperidine Moiety



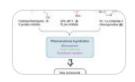
RESEARCH PAPER | 06 April 2025 | Pages: 869 - 885

Analogue-Based Design, Synthesis, and Antimicrobial Study of Aryl and Heteroaryl Sulfonamides as Multi-Targeted Antimicrobial Compounds



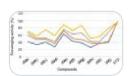
RESEARCH PAPER | 06 April 2025 | Pages: 886 - 900

Investigation of Quinoxaline-1,2,3-triazole Derivatives for Targeting SARS-CoV-2 *via* RBD Binding and PLpro Inhibition



RESEARCH PAPER | 06 April 2025 | Pages: 901 - 911

Design, Synthesis, and Anti-Alzheimer Activity of 2,5-Disubstituted 1,3,4-Thiadiazole: Kinetic Studies, Molecular Docking, and MD Simulations



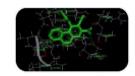
RESEARCH PAPER | 06 April 2025 | Pages: 912 - 931



Alzheimer's disease (AD)

Ultrasound-Assisted Synthesis of Polyfunctionalized Pyridine

Derivatives Catalyzed by Silica-Supported Perchloric Acid: *In*Vitro Anticancer Studies and Molecular Docking



RESEARCH PAPER | 06 April 2025 | Pages: 932 - 946